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ABSTRACT

This report presents a model that describes the logical steps that should be implemented to maximize self-renewal in a rapidly changing social environment. The model, which uses a systematic approach to the problems of change and accountability, is designed to assist educators in the continual definition, selection, and implementation of viable educational alternatives. The report discusses the theoretical background of the self-renewal model, suggests the segments of the educational system to which the model could be applied, and examines its associated time line. The author provides a step-by-step explanation of the model including (1) the selection of an educational philosophy, (2) the development of written goals from that philosophy, (3) the acquisition of a staff consensus on the philosophy and goals, (4) the development of educational objectives from the goals and priorities, (5) the establishment of a selection criteria for alternative instructional designs, and (6) the dissemination of the program plan. The model calls for continuous discrepancy evaluation to determine inconsistencies between the programs selected and the philosophy and goals desired. (Author/JF)

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A SELF RENEWAL MODEL

FOR EDUCATIONAL SYSTEMS

Controlled Change and Accountability Through Discrepancy Evaluation

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A SELF-RENEWAL MODEL FOR EDUCATIONAL SYSTEMS

The professional educator is coming under increased pressure from a number of sources to change the educational process. Students, parents, teachers, boards of education, and various pressure groups are calling for increased curricular relevance, general and specific change, and scholastic self-assessment procedures. The list of books critical of the present education system presently fill whole sections of bookstore shelves.

In almost every case the group calling for reform does not know how to institute change, but has expectations that the educator will respond to its demand in a professional manner. Contrary to expectations, the professional frequently does not know how to systematically institute the change being called for.

In addition, there is an increasing pressure for schools to institute some form of "educational accountability." This demand for accountability may be communicated to a board of education by the voters, when they vote down a school bond issue because they do not understand how the money will improve the learning experience of children. The demand may come through state legislatures, as it did in Colorado when a school "accountability act" was made state law. When the Gary, Indiana, school board contracted with Behavioral Research Laboratories, a private enterprise company, to educate the students of Banneker

Elementary School, they entered into a contract which held each party strictly accountable for the results. There is no doubt that the demand for school accountability and change will increase in the next decade. It is also clear that professional educators are, in general, not technically prepared to respond to the demand for accountability or change.

Much of the dissatisfaction with public schools could be effectively resolved through a procedure for program self-renewal. The institutionalizing of a self-renewal plan would insure that a program of problem identification, needs assessment, and goal redefinition would be carried out in the educational system. This paper presents a self-renewal model which uses a systematic approach to the problem of change and accountability in an educational system.

What is school self-renewal? Self-renewal can be described as a series of processes which define, examine, assess, and determine alternative modes of action within the educational system. The self-renewal model has built-in features which prevent the educational system from stagnating and never asking the question: "Where are we now?" Most educational units have built-in safeguards against change. Most professionals in our present educational structure believe that a request to change a program can be equated to the statement: "The present program isn't (nor ever was) any good." A self-renewal model would provide the framework from which a program could be evaluated, not in terms of "good or bad," but in terms of

"this alternative (the present program) does or does not meet our present goals."

A great weakness in our present educational structure is the inability of professional educators to recognize that there is a large number of alternative modes of action to reach the many common educational goals within our society. Not only must increased note be taken of the advantages gained when educational units select among alternative educational programs, but it must be recognized that there is strenth in offering to the student a choice of alternative modes of education within the same system. Educational self-renewal is the process of continual definition, selection, and implementation of viable educational alternatives.

What is Accountability? Perhaps the simplest process for understanding the concept of educational accountability is in terms of the contract between Gary, Indiana, and the Behavioral Research Laboratories, for the education of students at Banneker Elementary School (Gary and Behavioral Research Laboratory contract, 1971). In this case "accountability " rests in both sides living up to a written contract, in which the conditions under which learning is to take place are clearly and explicitly stated. Here is a section of the contract which relates to the responsibilities of Behavioral Research Laboratories (BRL).

Guarantee

BRL makes the following guarantee with regard to any student enrolled in the Center for each applicable school year (a

school year consisting of an attendance of at least 150 days during the course thereof):

1. Each student enrolled in the program for three full consecutive years will perform at least at grade level at the end of the third year, as measured by nationally recognized tests;

2. Each student enrolled in the program for a full school year but for less than three years will each year achieve at least a year's advancement in reading and mathematics for each year when he is enrolled, as measured by nationally recognized tests, or in the case of any student who cannot read at the beginning of any school year, that he will score at least in the 50th percentile on a nationally recognized reading readiness test.

If a student does not achieve the results guaranteed BRL will refund the entire fee due it for each student that is attributable to the instructional phase of the program for the applicable guarantee period. For the purpose of this agreement, cost attributable to the instructional phase of the program refers to all expenditures with the exception of clerical and custodial costs.

In this portion of the contract, accountability means that BRL guarantees to produce students having certain baseline performances in reading and mathematics. But this is not the only aspect of the students' life for which BRL is accountable. As reported in the Banneker Contracted Curriculum Center Evaluation Report (1971), prepared by the Center for Urban Development in Education:

> While the above portion of the contract sets forth the terms of the payment, and the evaluator of the program demanded by such terms, there is much more to the evaluation of the program than the standardized testing program. The task of the Center for Urban Redevelopment in Education was to design an evaluation and monitoring proposal which would measure the outcomes listed in the objectives of the proposal, as well as assess the sucess or failure in purely human terms, as measured by observation of teacher and pupil behavior, by parent and community reaction, and by the reaction of the trained professional educators employed by CURE to monitor and evaluate this project.

Accountability for the city of Gary took the following form:

Such guarantee (Behavioral Research Laboratories Guarantee quoted above) shall not be operative, however if the Board does not or cannot legally:

A. Make facilities at Banneker Elementary School open and available at all times during the term hereof to BRL necessary to perform its services for the Center;
B. Provide BRL, upon request, with all relevant information and data concerning the students to be enrolled in the Curriculum Center or concerning the Gary, Indiana school populace;
C. Assure that the Center is open and available to all professionals and teachers; aids in the City of Gary for observation, training, internship, and evaluation, and to the community for community activities;
D. Upon fifteen days written notice from BRL, accept for reassignment any teacher or administrator who BRL, advises is not suitable for work in the Center, or honor the written request of any staff member for reassignment from work in the Center;
E. Substantially follow the plans, recommendations, and procedures reasonably made or provided by BRL.

Accountability is clearly illustrated in the Gary and Behavioral Research Laboratories contract. Accountability means that the parties involved have clear goals, responsibilities, and duties; that these are explicit and in writing, which guarantees clear communication and understanding of the parts played by all involved; and that there are methods and procedures for determining if: 1)The goals have been reached; 2)All parties have been responsible for their actions; 3)Duties have been performed at an acceptable level; and 4)Costs have been clearly stated.

In the literature on accountability, a common element is present. This element is an insistence that in assessing the performance of the educational system major attention must be given to measuring the performance of the students who are in the system. This approach is in sharp contrast to the

traditional methods of educational assessment that usually appraised the quality of educational programs and services primarily in terms of the quality of school plant and the facilities, the paper credentials of the professional personnel, the number of dollars expended per pupil, and the like. Accountability entails product evaluation rather than process evaluation.

DeBloois (1971) characterizes accountability as the concept which focuses on the assessment of goal achievement. He states it is a form of summative evaluation which requires an examination of the organization's products in terms of its objectives. Ultimately accountability should measure to what degree of probability the educational system will be capable of continuing that level of production and efficiency.

Theoretical Background of the Self-Renewal Model. Many of the points of this self-renewal model were taken from concepts presented by Foster (1970) in a paper describing a school evaluation model. Here evaluation was characterized as the process of describing and judging, on the basis of explicit, reliable data, the major program components at each stage of the developmental process. The same data provided a basis for for decisions and actions concerning the further development or dissemination of the program. In a theoretical framework which attempts a comprehensive description of the utilization of the professional staff within the school setting, DeBloois (1971) identifies seven essential characteristics of a staffing

description. Included in his model are the two process variables of accountability and self-renewal, and he develops the principle that these two variables are an important part of staff utilization within the educational system.

Large segments of this model reflect the first phase of development of the model (The Self-Renewal Model: Part I of the series, A Systematic Approach to the School Self-Renewal Process, Geisert et al, 1971). The development of the model to this point has been largely conceptual, although several schools are presently validating portions of the model through field trial and evaluation, and one school within the Florida State Flexible Staffing Project is implementing the original model in an empirical test,(A Systematic Approach to the School Self-Renewal Process, Part II, Geisert, 1971).

Even with scant empirical data, there are several reasons for assuming the model will be effective. First, the model represents a synthesis of experience with the self-renewal process at Nova High School (1969), Karsruhe School System (1969), and Roy High School, Roy, Utah. A survey of recent publications (Stogdill, 1965; Owens, 1970; McGregor, 1960; Likert, 1961; and Argyris, 1965) has demonstrated a congruence between the model and concepts accepted in organizational development theory. A number of schools in the process of self-renewal have previewed the model and have supported the processes described by the model. Briggs (1970) in an article on selecting objectives and media for urban education, defines a series of stages which

represent a logical sequence of events for the needed long-range planning of school curriculum and these stages support the position taken in the self-renewal model presented in this paper.

The self-renewal model is valuable in that it organizes a set of procedures in which a staff can engage to satisfy the growing demands of the public that certain goals and procedures of the educational system be examined. The power of the self-renewal model is illustrated by surveying some of the questions which it will systematically answer:

1) Where is our educational system now?
2) How does our educational philosophy relate to our clients (students, parents, community, staff, etc.)?
3) Do we have procedures for the assessment of staff, and student feelings?
4) Do we have procedures for determining when we have a consensus to move ahead with organized change?
5) Does our educational system have written process and product goals?
6) Does our educational system have written program, curriculum, and course objectives?
7) Do we have a set of written priorities for our goals and objectives?
8) Do we have evaluation procedures to determine the relevance of our goals and objectives?

9) Do we have any procedures whereby our goals and objectives can be implemented as actual educational programs?

10) Do we have any evaluation procedures whereby our philosophy, goals, objectives, priorities, and programs can be determined to be congruent and interrelated to each other.

11) Do we have any systematized review procedure whereby the important questions can be asked each year?

12) Do we have any systematized procedures whereby the the clients have real decision making power?

13) Do we have any input mechanisms whereby our clients can introduce change in the system?

14) Do we have any systematized procedures whereby information from the system can be disseminated to our clients?

15) Does our educational system have any procedures for systematizing institutional change?

16) What is the nature of our educational product? What competencies do our students have when they leave our educational system?

17) What is the nature of the attitudes our students hold toward our educational system?

18) What alternatives are available at various points in the educational system?

19) What alternative resources are available to meet educational needs?

Reviewing all of these questions may overwhelm the reader

with the complexity of the situation, but at the same time he should realize that the systematic examination of these questions will result in the confronting of one problem at a time. The most realistic way to deal with the current demand for the examination of the educational system (and the implicit call for change and accountability) is a step-by-step process of self-renewal. Although previous innovations will continue in this process, only one change will be initiated at a time; and at any point in time the capacity of the educational system to change will not be severely overloaded.

A second major theoretical consideration of this model is the utilization of the concept of discrepancy evaluation as the major method of progress assessment within the model (See Provus, pages 9-14, 1971).

As Provus points out, at least five definitions of program evaluation are presently in use:

1. The judgement of authorities about a program;
2. The opinions of the program staff;
3. The opinions of those affected by the program;
4. A comparison of actual program outcomes with expected program outcomes; and
5. A comparison of an executed program with its design.

The first four types of program evaluations are commonly and currently in use. The last type of program evaluation is described by Provus as:

The fifth definition of evaluation, which is advance in this

> book, holds that every aspect of a program, not just its outcomes, is involved in an evaluation. Evaluation is primarily a comparison of program performance with expected or designed program, and secondarily, among many other things, a comparison of client performance with expected client outcomes. This comprehensive comparison of many aspects of actual events with expected events therefore requires the explication of a detailed picture of an entire program at various points in times as the standard for judging performance. These program standards may arise from any source, but under the Discrepancy Evaluation Model they are derived from the values of the program staff and the client population it serves. Similarly, when the values employed by persons conducting an evaluation are compatible with those of the staff and program being evaluated, it is generally possible for everyone concerned to both understand and accept a final evaluation report. When value conflicts exist among clients, practitioners, or evaluators, reports are generally characterized by lack of specificity and debatable conclusions.

And Provus continues:

> Ultimately, programs will improve only if teachers, administrators, and students in most of America's classrooms become involved in a comprehensive effort to review and improve their work. Such an effort requires a careful analysis of the strengths and shortcomings of existing procedures, a description of desired events and their sequence, and the designing of a series of small experiments to test the actual effects of each event.

The self-renewal model presented in this paper is not synonymous with Provus' Discrepancy Evaluation Model. There are many parallels between the two models. The major similarity in both the models is that at each stage in the models a comparison is made between reality and some standard or standards (which have been defined by the participants in the process). The comparison process often demonstrates differences between the standard and reality, and this difference is called discrepancy. On the basis of the comparisons made at each stage discrepancy information is utilized as feedback to the program staff, giving them

a rational basis on which to make adjustments in their program.

The major difference between the models lies in the approach of an evaluation model as contrasted with a self-renewal model. The prime focus of the model presented by this paper is on self-renewal, not program evaluation.

To What Segments of the Educational System Does the Self-Renewal Model Apply? Since most of the elements of instruction are common at all levels of education, the self-renewal model applies to almost every level of the educational system. The model would serve at the elementary, secondary, or university level, and within these levels would serve at the classroom (especially team teaching situations), departmental, school, school district, and college sub-divisions. In addition, the model could be utilized in state and federal projects concerned with education.

That such a wide diversity of levels and sub-divisions can be served by one self-renewal model is not surprising. The basic elements of the model, i.e. goal setting, instruction, evaluation, dissemination of information, communication, etc., are common to almost all educational systems. Therefore, the basic model can be utilized in a number of diverse settings, and the minor changes that must be implemented to modify the model to fit various circumstances are clearly dictated by common sense. For example, if the model is being utilized by four teachers within a team teaching situation, the type of communication lines which would be established are clearly and simply different from

those which would be established within a department in a college or a university.

What Type of Time Line is Associated with the Self-Renewal Model? "Self-renewal" implies a cyclical model--and this concept generates two questions: 1. How much time does it require to complete one cycle of the model? and, 2. Does each cycle of the model take the same length of time? The answer to the first question depends on a number of factors:

a. What instructional unit is involved in the self-renewal/accountability process (classroom, department, college)?

b. What are the competencies of the individuals entering into into the self-renewal/accountability process? Do the participants have a strong background and understand many portions of the model, or will in-service training in the use of the model be necessary?

c. How much time and energy do the participants in the process have to devote to the self-renewal/accountability model?

d. Are there deadline constraints on the model? Is it necessary, for some reason, to complete one cycle in a given length of time?

There are no built-in time constraints associated with the model, except that the model dictates that certain events must preceed certain other events. An English Department in a typical public school, with full commitment, starting from scratch, might a accomplish the entire self-renewal/accountability process in a

summer workshop of six to eight weeks. An elementary school might make a superficial cycle in one year. Rickards High School in Tallahassee, Florida, is attempting to institute the model in a period of a little over one and a half school years. A reasonable time period could be determined for a given educational unit by a careful assessment of the questions listed in this paragraph.

In regards to the question, Does each cycle of the model take the same length of time?, the answer is clearly "no." The movement through the model should take longer on the first cycle, due to lack of sophistication of knowledge of the terms, processes, and products expected with the use of the model. Each cycle of the model should take less time, and after the first passage through the model, subsequent cycles of one year seem realistic. This would depend on the needs and interests of the educational unit involved in utilizing the model.

One of the strengths of the model is its flexibility. A department might chose to make a rapid and superficial cycle through the model in six months and change little in the program, or spend years working through the model in great detail. Either situation is certainly more beneficial than the traditional procedures, in which there is no systematic procedure for change. Even if superficial changes and accountability procedures are instituted, the model dictates that the department recycle and review the changes the next year, thereby institutionalizing the change process.

The Self-Renewal Model

Keeping in mind that the educational system will be engaged in only a few aspects of the model at any one point in time, Figure 1 illustrates the first four steps in the self-renewal process.

In the model, Step 1 identifies the typical educational unit which is operating on a historic basis with no systematic method of asking the questions which result in self-renewal. If an educational system is to move out of this situation, some unit of the system must assess the resources, assets, and problems of the system, then ask the question, "Where are we now?" (Steps 2 and 3).

The status study (Step 2) should determine the resources, assets, liabilities, deficiencies, and problems of the system. It is assumed that professional assistance from outside the system might be necessary in the informal assessment. The informal assessment process is not an easy task to undertake, since there are many community and educational factions which represent a great diversity of opinion. The system must have the technical competency to plan to organize this assessment, or it must secure the assistance of a professional from outside of the system to help in the planning. The board of education, staff, community, local and national teacher organizations, and students of the school (Step 2b, 2c, 2d, & 2e) should be utilized in this and subsequent steps, perhaps through establishment

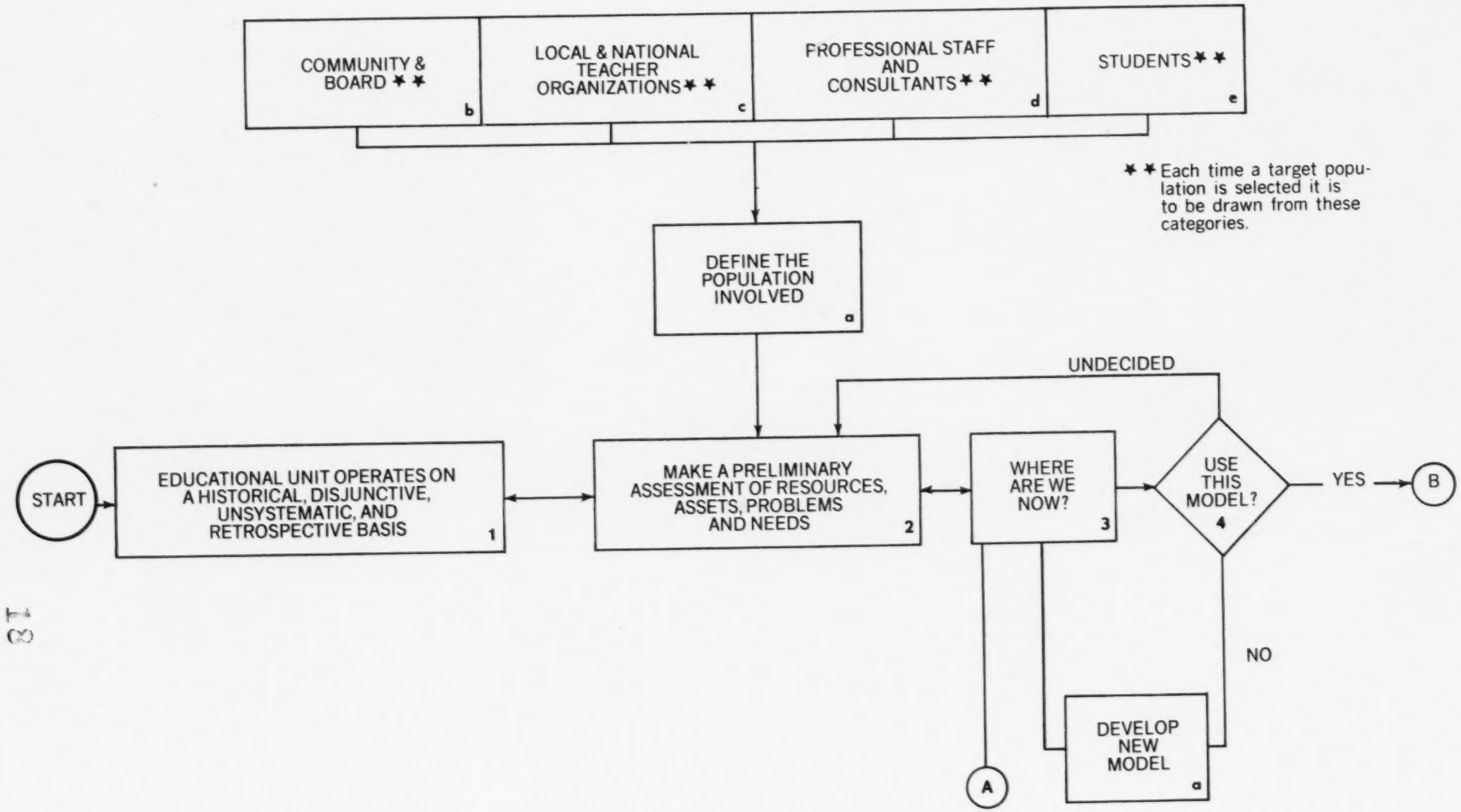

Figure 1. A self-Renewal Model For Educational Systems, Part A

and use of a "blue-ribbon" committee of representatives of each group (Step 2a). The utilization of students and community representatives at appropriate development and decision points in the model will do much to reestablish the faith and trust of the community in the professional ability of the staff. As Briggs (1970) points out: "In arriving at the local educational objectives (philosophy), great care must be taken to permit the student to exercise the maximum decision-making role of which he is capable. This role presumably would enlarge with the age of the learner." McGregor (1960) cautions on this point that "participation" not be used as a manipulative device to trick students and staff into accepting pre-determined decisions or problem solutions. Such a technique, when recognized, will lose far more than could have been gained by "making them feel important."

Upon completion of the status study, the educational system will have decided it is satisfied with its present status (Steps 2 & 3) and thereby move back to Step 1, or will have decided that it is not satisfied with its present status, and move to Step 4. The system must make the decision to use this model or some other model of their own design or choosing (Step 4a). If the decision is made to utilize this model, the move is made to Step 5 (Figure 2), and the writing of a working draft philosophy is undertaken.

The first step in writing a draft of the philosophy is to

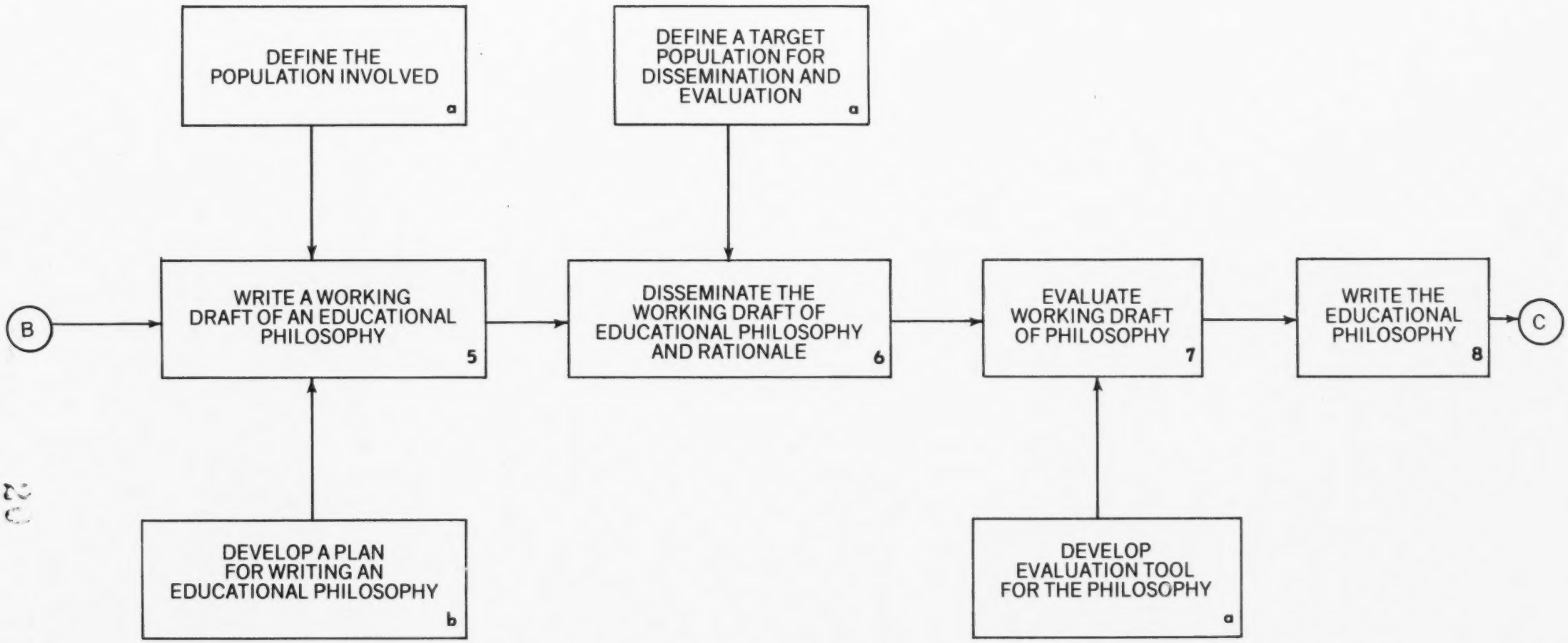

Figure 2. A Self-Renewal Model for Educational Systems, Part B

define the population which will be involved in the writing sessions (Step 5a). This group may or may not be the same as the group which undertook the preliminary assessment of resources, assets, problems, and needs. Whatever population is chosen to work on the draft copy of the philosophy, this group must develop a plan for writing an educational philosophy (Step 5b). The plan may involve writing a philosophy from scratch, or may be a plan to accumulate philosophies from other schools and use them as models. Whatever the plan, the result of Step 5 in the model is a written copy of a working draft of the philosophy of the educational unit.

The working draft of the philosophy is disseminated to a target population, along with a written rationale for the philosophy (Step 6). The target population for this dissemination (Step 6a) could be as large as the entire body of clients of the system or any subdivision. An evaluation of the working draft of the philosophy should be developed (Step 7a). This instrument should evaluate how the population involved with the philosophy feels about the document as proposed (Step 7). Perhaps this instrument would be a letter to all clients of the educational system, or a full page ad in the local paper, but some method must be instituted to describe and explain the philosophy proposed for adoption. It should be made very clear that the philosophy will be a guide to and standard for all subsequent activities, and not merely a procedure of social convenience. With the results of the evaluation in hand the

writing committee should then produce a "finished" educational philosophy (Step 8). The philosophy, at this point in the model, is "finished" only in the sense that it will be a standard through one complete cycle of the model. The model will direct the educational unit to cycle back to this point at a later date, and the philosophy may be rewritten, based on the experiences encountered during the cycle. The finished philosophy should embody the hopes and desires of the clients of the educational system and should include the broad statements which characterize and identify the aspirations of those clients.

Bloom (1969) cites the values of explicitly stating the educational philosophy:

> In a highly stable society, the basic values which the society prizes become an integral part of the educational philosophy, and the organizations and activities of the school reflect these values. In a society in rapid transition, there is usually confusion about values and there are ways they can be implemented by the schools. An explicit educational philosophy can do much to give meaning and direction to the schools (page 11).

Once approval is gained to adopt the school philosophy, Step 9 (Figure 3) can be taken. The operationalization of the philosophy through goals will be mainly the function of the professional staff, although involvement of students and community representatives in decision-making roles is strongly urged (Step 9a).

The question of what constitutes a "goal" should be considered at this step. The model defines a goal as a statement of intent, which lies somewhere between the general ideological statement of the philosophy and the specific mea-

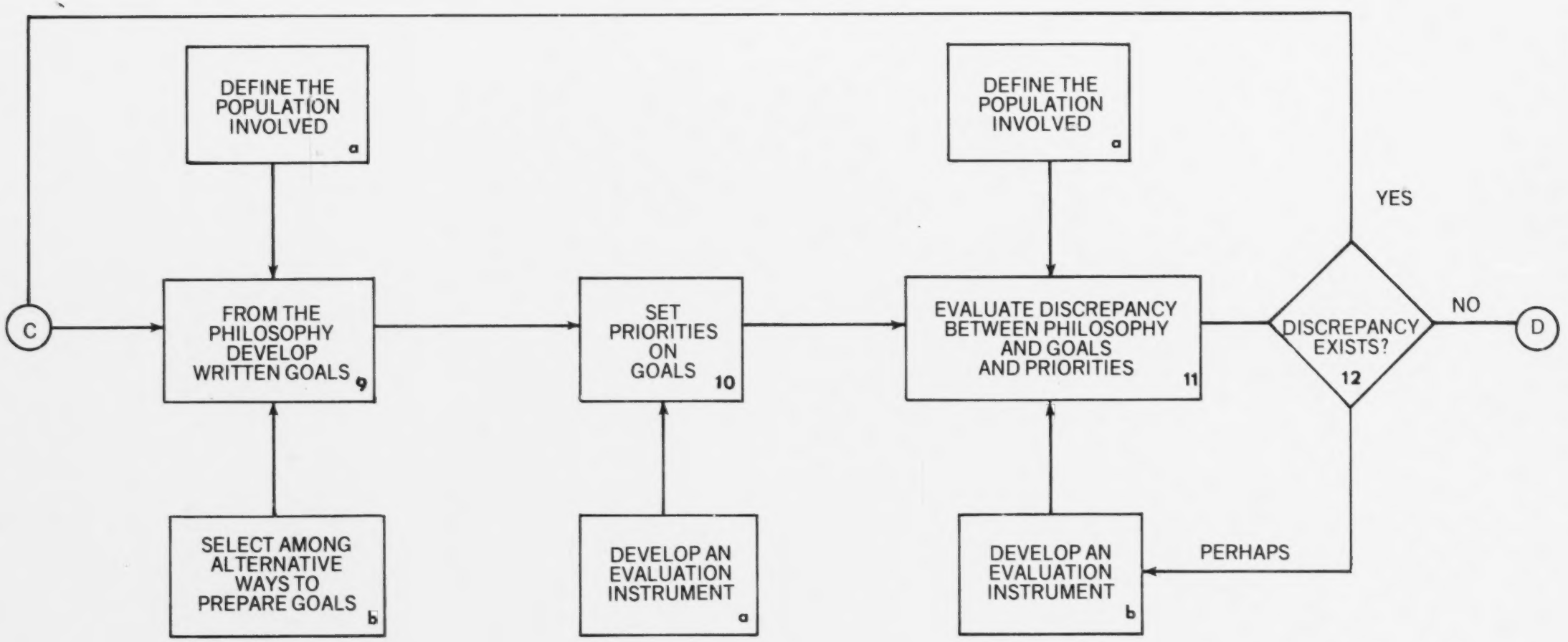
C
DEFINE THE POPULATION INVOLVED a
FROM THE PHILOSOPHY DEVELOP WRITTEN GOALS 9
SELECT AMONG ALTERNATIVE WAYS TO PREPARE GOALS b
SET PRIORITIES ON GOALS 10
DEVELOP AN EVALUATION INSTRUMENT a
DEFINE THE POPULATION INVOLVED a
EVALUATE DISCREPANCY BETWEEN PHILOSOPHY AND GOALS AND PRIORITIES 11
DEVELOP AN EVALUATION INSTRUMENT b
DISCREPANCY EXISTS? 12
YES
NO
PERHAPS
D

Figure 3. A Self-Renewal Model for Educational Systems, Part C.

surable behavioral statements embodied in program, curriculum, and course objectives. Goals should be broadly derived, weighted, and sequenced within the logical framework of the value system (philosophy). The discussion of purpose and goal formulation centers around two levels of specificity, conceptual and behavioral. The conceptual level is the general description of the purposes and goals which the project is attempting to attain, and these purposes and goals should be stated in a comprehensive and generalizable manner at the conceptual, not behavioral, level. The behavioral level (objectives) follows from the conceptual level (goals). The behavioral objectives represent the specific (behavioral) descriptions of the way in which the goals will be manifested. To help you to understand the relationship of philosophy and goals an additional viewpoint may be of value.

The California School Boards Association (1969) defines philosophy and goals in the following manner:

> Philosophy: A composite statement based upon beliefs, concepts, and attitudes from which the educational purpose of the district is derived.
>
> Goals: A statement that proposes desired and valued competencies, states of being, and/or general levels of proficiency to be achieved. Goals are achieved through the accomplishment of objectives within an educational entity.

There are a number of ways in which an educational system could arrive at goal statements (Step 9b). The system could decide to initiate the writing of the goals by professional staff members. The unit could secure goal statements from other educational systems similar to theirs, and use these as references in writing their own goals. The decision on which alternative to utilize is made during Step 9. Whatever method of preparing the goals is chosen, the finished product of Step 9 is a written set of goals which reflect and operationalize the philosophy.

At Step 10 the system sets priorities on the goals. One educational system may set a high priority on the goal of occupational preparation, while a second may set a high priority on preparation for higher education. The easiest way

to set priorites on goals is to develop a simple evaluation instrument (Step 10a). Every educational system has limited staffing and/or financial resources. These resources must be allocated in some fractional manner, and this fact is the basis for setting priorities. The setting of goal priorities is one of the most important steps in the model, since it dictates which of the educational system's activities will receive the largest proportion of time and effort during the first cycle of the model. The setting of priorities implies that the goal with high priorities should receive the greatest proportion of time,

effort, and finances to insure the goal is reached.

During Step 11 the first "discrepancy evaluation" in the model is performed. A discrepancy evaluation is a comparison of some "reality" with some "standard." In this case written goals and priorities (the reality) are to be compared with the philosophy (the standard). The question to be asked is: "Are there any discrepancies between what the philosophy states (the standard) and what the goals and priorities state (the reality).

The goals should be judged to be "in tune" or "out of tune" with the philosophy. If a discrepancy evaluation demonstrates that the goals and priorities are "out of tune," the goals and priorities must be modified to eliminate the discrepancy. An evaluation instrument should be developed (Step 11b) and administered to an appropriate population (Step 11a). If a discrepancy exists (Step 12) the model dicates a return to the writing of goal statments. If a discrepancy is suspected, a return to the development of a new evaluation instrument is in order, and if no discrepancy is noted, the model states to continue on to the assessment of the beliefs and attitudes of the professional staff (Step 13, Figure 4).

As I have pointed out in another paper (Innovation and Educational Assumptions, 1971), a key aspect of introducing change in the educational system lies in the ability of the staff to accept the changes and innovations. It is my premise that change (a new set of goals) takes place within a framework of

beliefs which govern, guide, and dictate the actual procedures of the system. Translated, this means that no matter what has been written in the goal statements, the educational system will continue to operate on the framework of beliefs held by the professional staff (and to a lesser degree the clients). If the beliefs of the staff are contrary to the written set of goals, the educational system will operate on the basis of the beliefs, not the stated goals.

If a group succeeds in introducing a new set of procedures into an educational system, for example new goals, the innovation will have an effect and persist only to the degree that it does not challenge existing major beliefs of the system. A major innovation can never change the beliefs <u>per se</u>, because the innovation which is contrary to the established framework will never become sufficiently stabilized to demonstrate its value. In effect, I am claiming there is a self-fulfilling prophecy at work, and the prophecy states: "Any innovation which challenges the framework of beliefs of an educational system will not be effective and persist because the innovation will be evaluated by the standards of the framework and could not possibly be judged "good" as long as the original beliefs are held by the evaluators."

A discrepancy evaluation must be made (Step 14) to determine if a discrepancy exists between the attitudes and beliefs of the

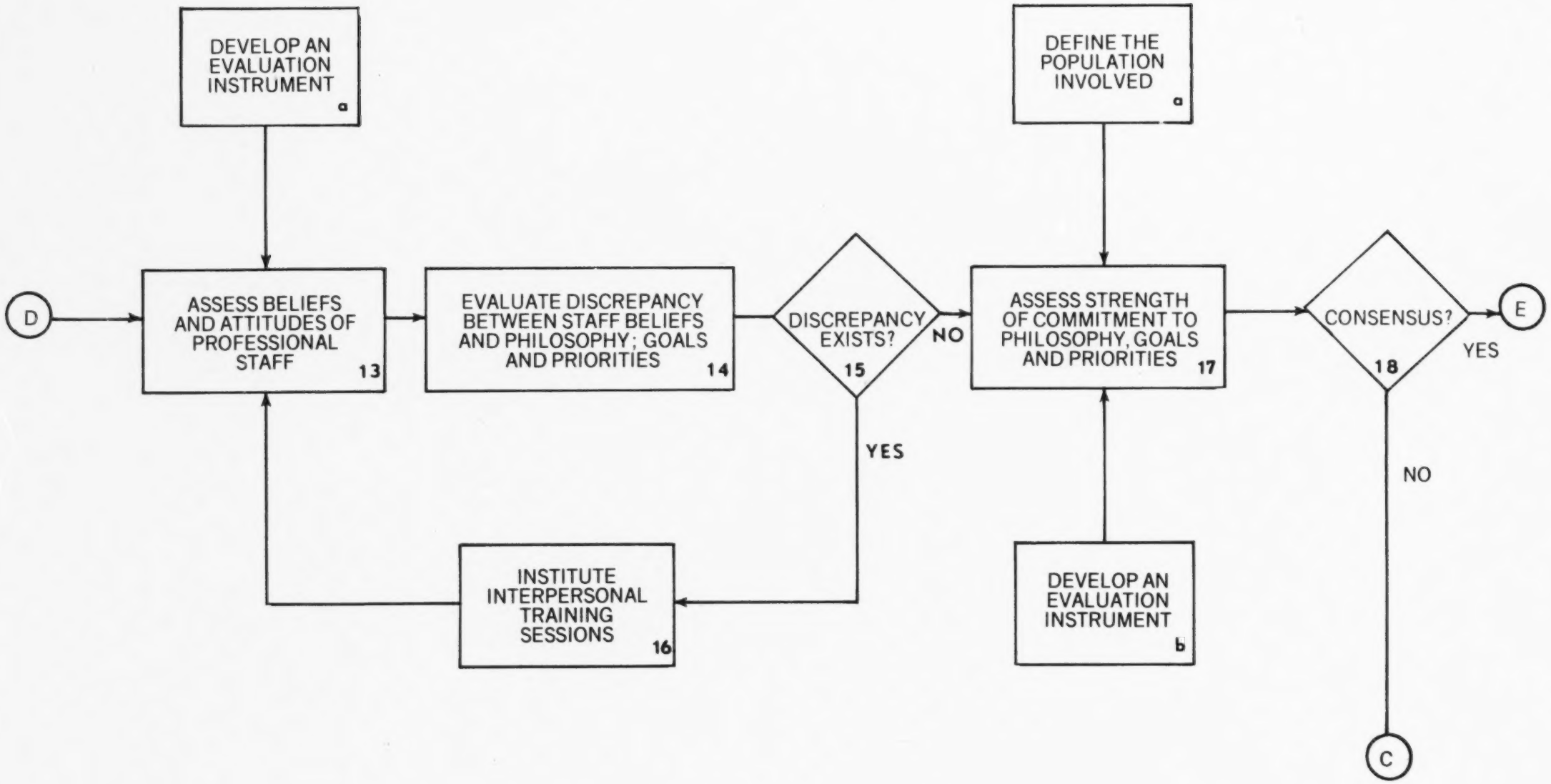

Figure 4. A Self-Renewal Model for Educational Systems, Part D.

staff, and the philosophy, goals, and priorities which have been set down. This is accomplished through the use of an appropriate evaluation instrument (Step 13a). If a discrepancy exists (Step 15), a recycle must be made to institute training sessions to modify the attitudes of the professional staff (Step 16). During this discrepancy evaluation (Step 14), the reality lies in the staff attitudes and beliefs, and the standard for comparison lies in the philosophy, goals, and priorities. Staff attitudes and beliefs must be brought in line with the standard, or the philosophy, goals, and priorities can never be successfully introduced into the educational system for a sustained length of time.

At Step 17 an assessment is made of the strength of commitment of the educational system to the philosophy, goals, and priorities. To perform this assessment the population is defined (Step 17a) and an evaluation instrument is prepared (Step 17b). This instrument must be designed to evaluate if a consensus exists concerning the commitment of the staff to the philosophy, goals, and priorities of the educational system. Consensus represents a group solidarity in sentiment and belief. It is a general agreement or collective opinion concerning the willingness to implement the philosophy, goals, and priorities. Consensus implies; I may not be in complete agreement with all parts of the philosophy, goals, and priorities, but they have been developed in a professional manner, and I am willing to

give them a fair trial." If a consensus is not gained (Step 18) the system must recycle to Step 9 and write a new set of goals, or set new priorities which are more acceptable to the educational system. If consensus is gained, the system enters into Step 19 (Figure 5), which is the development of educational objectives from the goals and priorities. An attempt should be made to develop program, curriculum, course, and instructional objectives. In-service training (Step 19b) of the total population involved (Step 19c) may be necessary to develop skills in the writing and use of objectives that are clearly stated in behavioral terms. Stating instructional objectives clearly is no easy task; the staff may find that there are state, local, societal, political, and organizational policy constraints on their objectives writing procedures (Step 19a). These policy constraints should be identified, and objectives written to comply with the constraints, or an effort should be made by the school district to remove the constraints. Immediately following the development of the total set of objectives for the school, testing procedures should be developed to enable the system to evaluate when the behavioral objectives are reached by the students (Step 20). Criterion test items can be developed to measure the objectives directly and determine at what level the objectives are being met. In a summative sense a system's accomplishment will be measured by how well the objectives are achieved. In this model the clients of the system know what

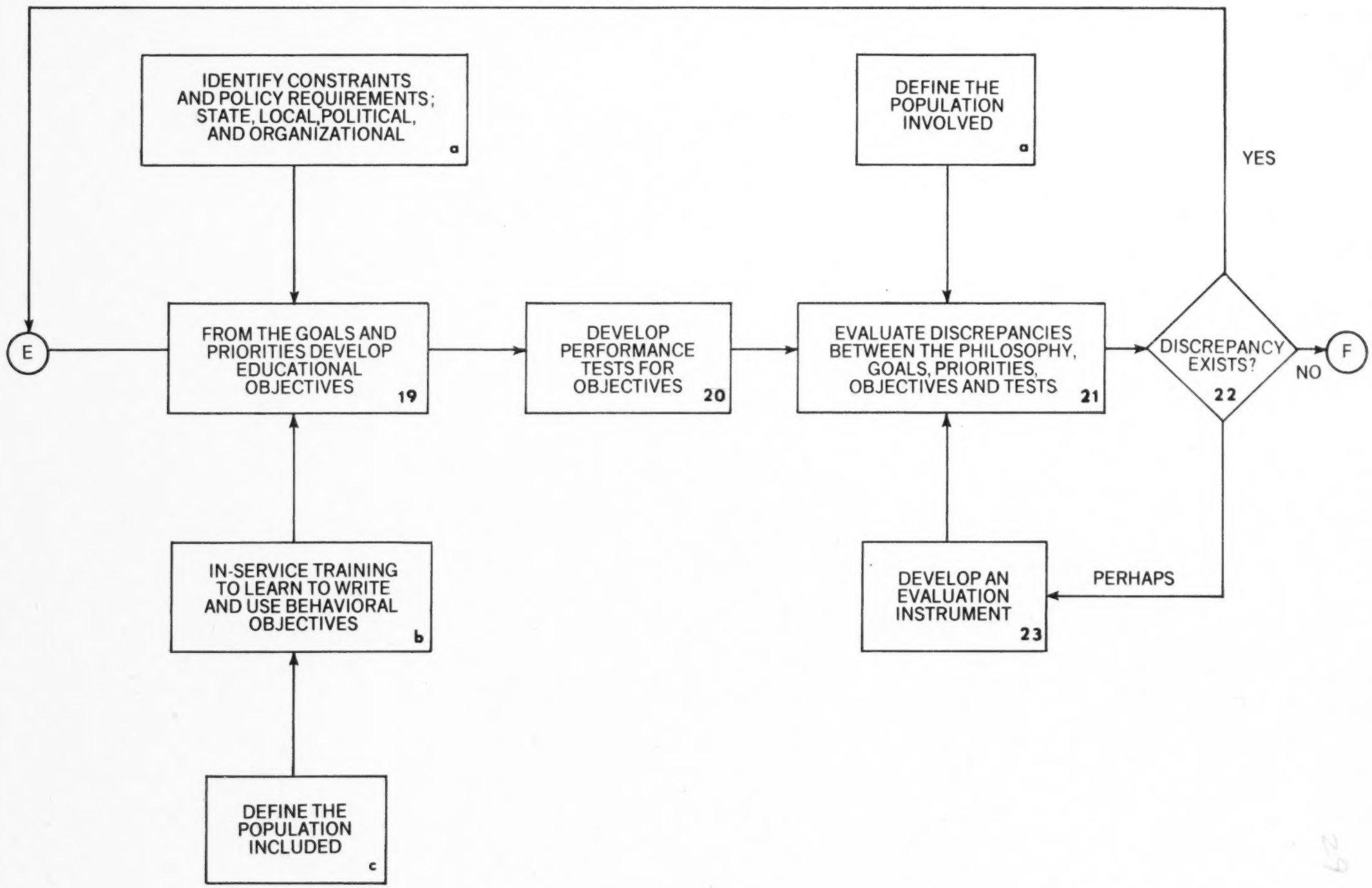

Figure 5. A Self-Renewal Model for Educational Systems, Part E.

the system intends to do, and they know by what procedures the educational system will account for its actions.

At Step 21 personnel (Step 21a) should evaluate any discrepancies between the philosophy, goals, program, curricular and course objectives, and criterion tests. For this purpose an evaluation instrument must be developed (Step 23). If a discrepancy exists (Step 22), the system must recycle to point E, and reconsider its educational objectives. If a discrepancy may exist the system should recycle and reconsider the evaluation instrument which was used in the evaluation, and perhaps perfect a better measure of discrepancy. If no discrepancy exists the educational system can move on to Step 24, Figure 6. The system is now ready to disseminate to the entire staff and clients the "package" consisting of the philosophy, goals, objectives, and criterion tests. The system must define the populations involved (Step 24a), develop an appropriate evaluation instrument (Step 24b), and determine the degree of consensus within the system to implement the package (Step 24 & 25).

A lack of consensus means that the school will have to recycle and perform a revision of the previous step (Step 24). If consensus is obtained from the staff and clients, the educational system can move on to Step 26 and Step 27 to design the instruction; that is, the structures and processes by which the previously written plans are to be implemented.

This point in the model represents a very critical time in

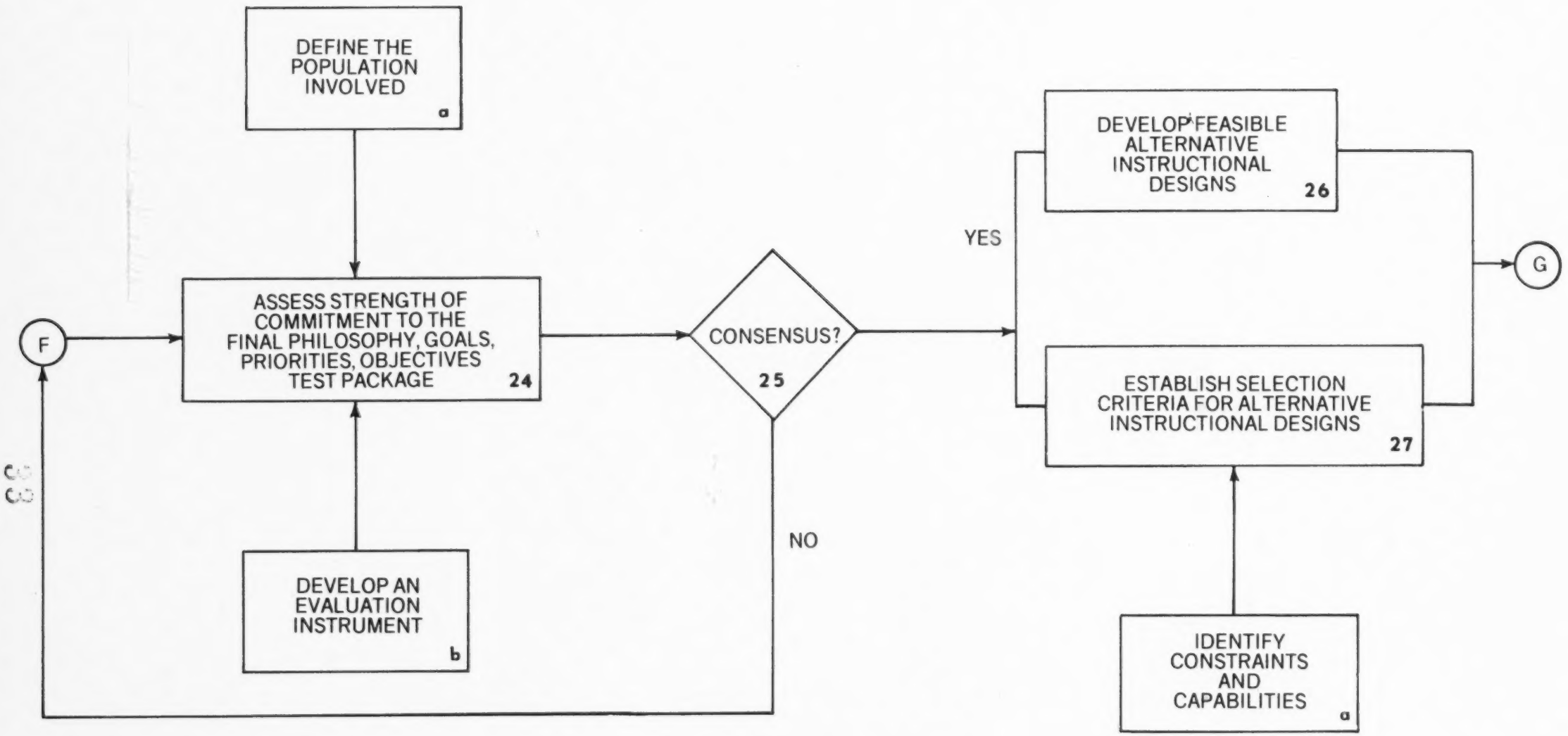

Figure 6. A Self-Renewal Model for Educational Systems, Part F.

the self-renewal process. During Step 26 the educational system will develop feasible alternative instructional designs for the system. At this time as much information as possible should be collected and classified for easy access. At the same time, personnel of the system should be establishing the selection criteria the system will use to decide which of the instructional alternatives is "best?" In order to help establish suitable selection criteria, constraints and capabilities of the system should be identified (Step 27a). Utilizing appropriate criteria, a selection should implement the instruction by which the objectives of the system will be reached. It is at this point that the decision is made to retain the old instructional methods or to institute new methods. Also, it is at this point that the educational system decides whether or not to implement innovations such as staffing, modular scheduling, or an open school concept. After the selection of the instructional design, an appropriate population (Step 29a) must develop an appropriate evaluation instrument (Step 29b), and a discrepancy analysis must be conducted to determine if all the elements of the system are consistent and congruent (Step 29). This is a major analysis, since it is being conducted on the entire "package" the system will employ in its educational processes. If a discrepancy exists (Step 30) the system must recycle to reselect an instructional design. If it is possible that a discrepancy exists, a second evaluation is

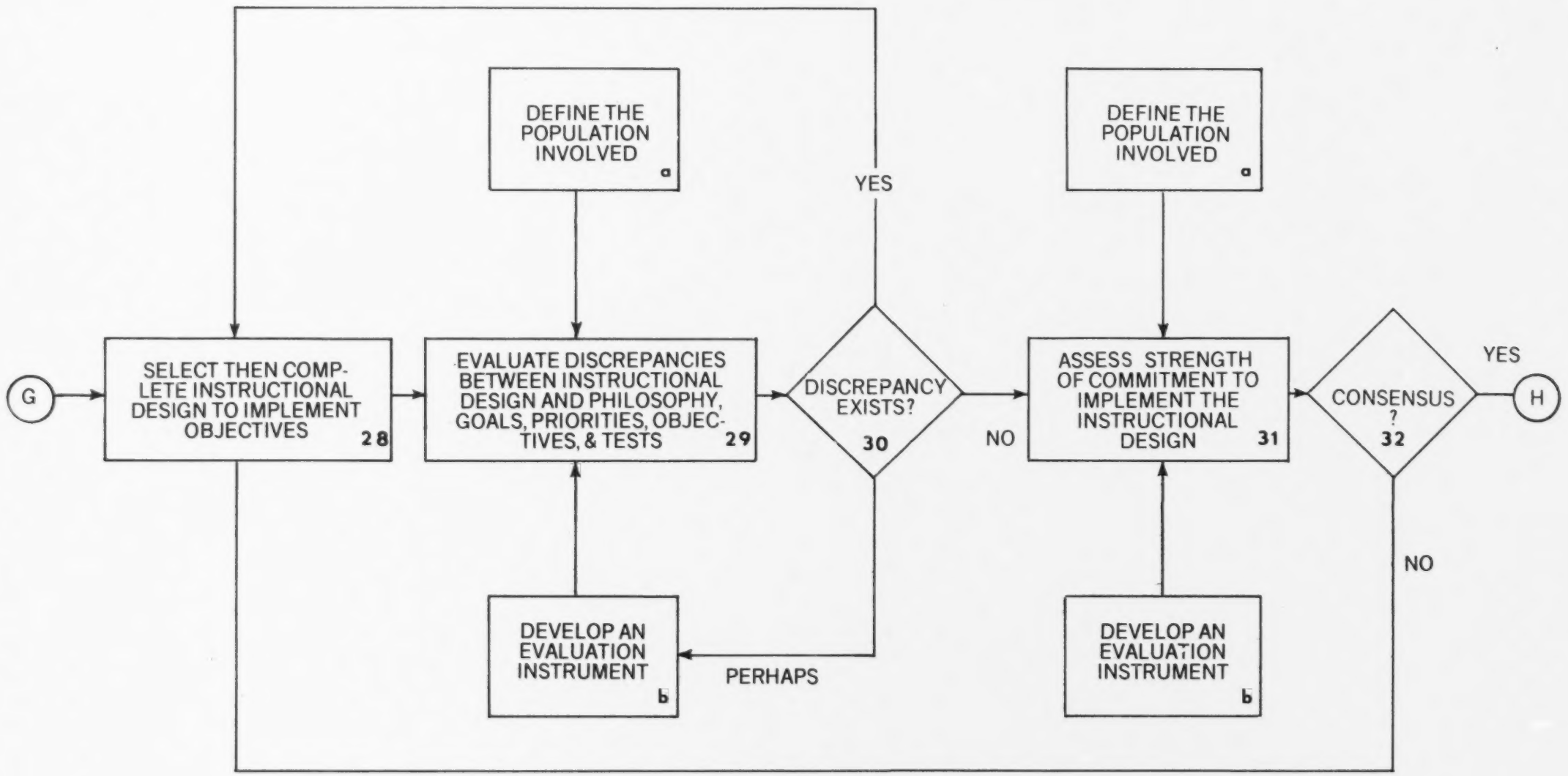

Figure 7. A Self-Renewal Model for Educational Systems, Part G.

in order (Step 29b). If no discrepancy exists, an evaluation instrument is developed (Step 31b), a population for involvement is identified (Step 31a), and an assessment of the strength of commitment to implement the instructional design is made (Step 31). A lack of commitment to implement the instruction demands a recycle to reconsider the instructional design (Step 32). Consensus on the part of the personnel involved to go on leads to Steps 33 and 34, the dissemination of the complete program plan to all involved individuals, and the design of the evaluation of the instructional program. On subsequent cycles through the self-renewal model, the personnel involved may be interested in designing cost-effectiveness analysis procedures (Step 34a) but on the initial cycle this probably will not be undertaken.

The instructional program (Step 35) and the evaluation plan for the instructional program (Step 36) are implemented. After a suitable interval of operational time in the instructional program, the results of the evaluation appear as process and product information. At Step 37 a major needs assessment is undertaken, in which a suitable population is defined (Step 37a), an evaluation instrument is developed (Step 37b), and an evaluation is made of the discrepancies between all elements of the program: the philosophy, goals, objectives, priorities, criterion tests, and instructional outcomes.

The last stage in the first cycle disseminates the educa-

tional results to all individuals involved in the program, and a recycle is made to the start of the self-renewal model.

A final point should be made. This model is prescriptive in the sense that it is claimed to have the following characteristic: if decision-making follows the order presented and each step of the model is taken, the probability of success in the self-renewal endeavor will be high. If problem-solving steps are taken out of order, or steps are skipped, the probability of success on the first pass attempt at the use of the model is lowered. The model prescribes a logical order of a decision process and increases the probabilities of self-renewal and successful achievement of institutional philosophy, goals, and objectives.

In summary, this self-renewal model describes logical steps which should be implemented to maximize self-renewal in a rapidly changing social environment. The model is in the process of empirical investigation, and field trials will soon test each step of the model, thereby providing feedback to educational systems for more exact and secure direction in the self-renewal process.

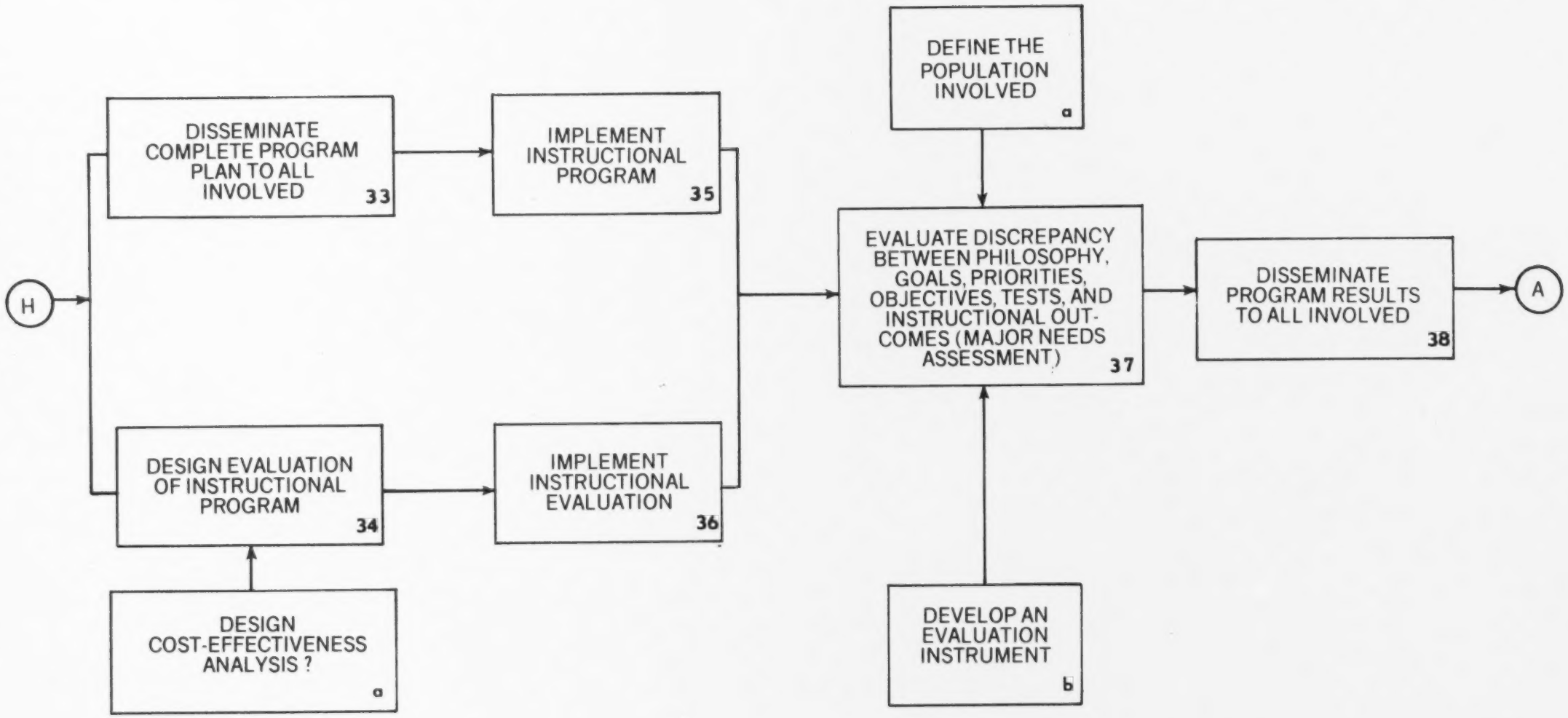

Figure 8. A Self-Renewal Model for Educational Systems, Part H.

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